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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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08/773,677 12/24/96 KAO

R 66263

EXAMINER

A1M1/1212

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120 SOUTH RIVERSIDE PLAZA  
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ART UNIT PAPER NUMBER

1108

DATE MAILED:

12/12/97

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

- ☒ Responsive to communication(s) filed on 11/28/97
- ☒ This action is FINAL.
- ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire \_\_\_\_\_ month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- ☒ Claim(s) 1-11 is/are pending in the application.
- Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-11 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some\* ☐ None of the CERTIFIED copies of the priority documents have been:
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

- ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- ☐ Notice of Reference Cited, PTO-892
- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s) \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

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Applicant's arguments filed 11/28/97 have been fully considered but they are not persuasive.

**REJECTION:**

Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rostoker et al., Mason et al., Pichat, Meegoda et al., or Detering et al in view of Lewis.

**Rostoker et al.** teach that a waste material such as contaminated soil is heated in a furnace to a molten state and then the molten material is cooled by quenching (see col.4, third paragraph and last paragraph and col.10, line 43 for quenching). Rostoker et al. further teach that this quenched glassy material may be added as a filler to concrete which contains cement and aggregate.

**Mason et al.** teach a method for processing wastes by glassifying the waste and teaches that it may be ground to form a glass frit. Note that a frit is ground glass so it must be ground or pulverized to comminute the particles.

**Pichat** teaches a waste incineration process which is applicable to "all" types of waste by heating to 1000°C and adding a material containing calcium carbonate (i.e. CaO source), silicon oxide, aluminum oxide, iron oxide. Pichat further teaches that the material formed is non-crystalline (ie a glass or

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amorphous) and has hydraulic properties which makes it cementitious (all claims, and col.3, last paragraph).

**Meegoda et al.** teach a process for remediating Cr contaminated soil by ex-situ vitrification and teaches that this glassy material may be used as an aggregate for highway construction. It is old in the art and worth noting that concrete is one example of a highway material (see abstract).

**Detering et al.** teach a process wherein soil is contaminated intentionally for study with various metals and melted to produce a glassy product. Detering et al. teach that the material formed is environmentally safe (see abstract).

The references above would appear to differ from the presently claimed invention because they do not teach the specific glass composition of the applicants' claimed invention nor the fluxing agent. However, **Lewis** teaches a glass composition that contains the same ingredients in overlapping amounts. Note that the applicants' usage of "about" claim language permits some tolerance and about 17% can be construed to read upon 20%. It is the examiner's position that vitrification of waste such as contaminated soil is old in the art and the use of a specific glass composition would have been an obvious design choice for

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one of ordinary skill in the art because a multitude of glass compositions lead to an environmentally safe product containing waste that will not leach and cause possible contamination of the environment (i.e. groundwater).

**RESPONSE:**

The applicants argue that Lewis, the secondary reference teaching a glass of overlapping composition, does not teach a fluxing agent and may be distinguished on those grounds alone. The examiner disagrees and notes that fluxing agents are commonly employed in the glassmaking art for purposes of lowering the melting point of the raw material glass batch mixture. It would have been an obvious design choice for one of ordinary skill in the art to employ fluxing agents for glassmaking.

The applicants also argue limitations not present in all of their claims. Applicants argue the limitations of a specific glass composition yet, for example, in claim 1, applicants have not presented any limitations with respect to a specific composition. While it is true claims are interpreted in light of the specification, it is improper to read the limitation of the specification into the claims.

The applicants argue that Lewis teaches high alkaline content of their glass (soda ash in amounts of 5-22 wt%) and that their *specification* states that sodium oxide content should be

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small in amounts of less than 1 wt%. Again, applicants argue limitations in their specification not in their claims. While it is true claims are interpreted in light of the specification, it is improper to read the limitation of the specification into the claims. Also, applicants use open "comprising" claim language which is inclusive of other components including alkaline components.

The other references have been held in the rejection because applicants have concentrated arguments on the secondary reference and not addressed other primary references. The applicants' arguments have further not addressed how and why their particular glass composition is unobvious over the many soil vitrified materials within the teaching of the prior art. It would appear that the use of a different glass composition for the purposes of vitrification would have been an obvious design choice for one of ordinary skill in the art absent evidence to the contrary.

It is the examiner's position that the concept of contaminated soil vitrification is old in the art and the addition as an aggregate for highway (which would use concrete) is old in the art as well.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is

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reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is (703) 308-1196.

Should efforts to reach the examiner not be successful, Mark Bell, Supervisory Primary Examiner for Art Unit 1108, may be reached at (703) 308-1196.

December 11, 1997



PAUL MARCANTONI  
PRIMARY EXAMINER  
GROUP 1100